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BOOK REVIEWS

ASPECTS OF STONE WEATHERING, DECAY AND CONSERVATION edited by Melanie S. Jones and Rachael D. Wakefield, Imperial College Press, London 1999. No. of pages: 196. Price £26·00. ISBN 1 86094 131 1

Twenty-two chapters cover papers presented at an Aberdeen conference in May 1997 arising from British Geomorphological Research Group support for the stone Weathering and Atmospheric Pollution Network (SWAPNET). Three are short poster abstracts and two are short presentation abstracts. There is no overall theme, but given the location of the conference, it is not surprising that seven papers emphasize Scottish locations.

The scientific findings include the importance of protective crusts in preserving the stone underneath; the role of redox reactions as well as acid base reactions; the importance of moisture in salt cycles; the significant of colonization by algae, fungi and lichens; the variation in the rates of soiling by algae and other agents (6-22 years); and progress on the interaction between various biological and non-biological agents.

What is abundantly clear is how stone weathering studies have swung away from natural environments (and even limestone weathering) to applied topics – perhaps following the funding opportunities. In various combinations of topics, eight papers focus on buildings, five on monuments and gravestones and three on cleaning techniques. Two are concerned with salts, two with algae, one with microclimate and only one with SO_2. Six papers focus on sandstone, two on limestone and one on granite. Perhaps as a further sign of the times, one paper focuses on paying for upkeep and restoration, asking 'how much would you pay for Durham Cathedral?'. Interestingly, there is also a shift from using the study of artefacts, monuments and buildings as a means of elucidating how rocks weather to an interest in the actual constructions themselves. The study of stone weathering has thus moved from an interest in the natural environment to a concern with built heritage which is evident in this volume.

The clear dilemma is that, of course, stone does exhibit weathering. The questions are weather we should try to preserve a crumbling heritage or to renew the work, as has been done at Wells Cathedral, parts of King's College Chapel in Cambridge and elsewhere. Such a dilemma is not the traditional remit of geomorphology, so it is good to see Laing and Urquhart in this book writing of heritage value systems and their interrelationship with financial, social and aesthetic values, although it is evident that there are no easy answers.

Traditionally geomorphologists might have presented their data on rates of decay and then sat back, handing over their results to the rest of society to make what it will of them. It is good to see geomorphology engaging with the implications of its findings and at least attempting to follow through to the management options and the likely outcome of various courses of action or inaction. Cleaning, for example, is a practice deeply rooted in value systems. At last we might be making contact with human geographers with interests in the urban landscape and social values. As such, this volume deserves readership not only from the stone weathering buffs but also more widely from urban geographers interested in architecture, heritage and a sense of place.

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INCISED RIVER CHANNELS: PROCESSES, FORMS, ENGINEERING AND MANAGEMENT edited by Stephen E. Darby and Andrew Simon, John Wiley, Chichester 1999. No. of pages; ix442. Price: £ 75·00 (hb). ISBN 0-471-98446-9

Incised river channels produce some of the most dramatic fluvial landforms and provide evidence of landscape disturbance. Growing recognition and understanding of channel incision over the last two decades has stimulated increased research into this important area of fluvial geomorphology. This book is a compilation of 15 chapters dealing with different aspects of incised river channels. An impressive collection of authors has been assembled covering a broad range of key topics. The book is divided into three main sections: an introduction (two papers); a section on processes, forms and incised channel evolution (nine papers); and a section on engineering and management of incised rivers (four papers). Three comprehensive and useful indexes (Author, Geographical and Subject) are provided at the end of the book.

Because this project started life as a book, the structure, balance and format of this volume is clearly more cohesive than those of many conference proceedings. The approach is unashamedly geomorphological and this is justified in the introduction. The editors are also at pains to point out the limitations of the book. For example, rills and gullies, headcuts, channel initiation, regional-scale denudation and tectonically active environments are not covered in detail. This list could be extended to include other aspects of incised channel behaviour (alluvial fan incision) or different environments (supraglacial channel incision), but the scope